

## TESTS FOR PRIVATE WELL WATER

**BASIC SCREEN - Coliform bacteria** are naturally present in the environment and are used as an indicator that other, possibly harmful, bacteria may also be present. **E. coli** bacteria is an indication of human or animal fecal contamination. **Nitrate + nitrite** can be naturally occurring, but often is associated with contamination from septic systems, animal corrals or feedlots, or runoff from fertilizers. **Specific conductivity** provides an estimate of the amount of minerals dissolved in the water – high conductivity indicates a large amount of dissolved minerals, which could adversely affect the quality of the water.

**METALS SCREEN** - includes calcium and magnesium, which contribute to hardness; sodium, which may be of interest to individuals on a sodium-restricted diet; zinc, iron, manganese, copper, and high-level lead and high-level arsenic. High metals concentration can affect the taste of water, may indicate a corrosion problem, or may lead to the clogging of pipes by hardness deposits. Iron concentrations above 0.3 mg/L (milligrams per liter or parts per million) may promote the growth of iron bacteria, which can produce a brown slime (often visible in the toilet tank) and an offensive odor. (Lead and arsenic can be analyzed by a more sensitive method in order to detect lower levels of the metals. EPA has set drinking water limits for lead at 0.015 parts per million (ppm), and for arsenic at 0.010 ppm. The SCREEN test will detect lead to about 0.010 ppm and arsenic to about 0.010 ppm. Individual lead and arsenic tests, which give more reliable quantitation, are available for \$21.00 each.)

**ANION SCREEN** – includes sulfate (can cause intestinal problems for those not accustomed to drinking water with high sulfate concentration), chloride (high levels can cause water to taste salty, and along with high hardness concentrations, may increase the likelihood of corrosion), fluoride (important for healthy teeth), alkalinity (buffering capacity of the water), and pH (and indication of how acidic or basic the water is)

**PETROLEUM SCREEN** – detects the presence or absence of hydrocarbons from fuels, oil and solvents in water; use this if you suspect a spill near your water source. Request bottles and collection instructions from the laboratory.

**PESTICIDE / HERBICIDE SCREEN** – detects the presence or absence of several common herbicides, pesticides and synthetic organic compounds in water. Request bottles and collection instructions from the laboratory.

**FULL WELL SCREEN** – all of the above Screens, at a \$40.00 savings – **You must collect Petroleum and Pesticide Screen samples in amber bottles obtained from the lab. Please call for these bottles.**

### Other Bacterial Tests Available for Well Water

**IRON BACTERIA** - iron levels above 0.3 mg/L may occasionally support the growth of iron bacteria, which may form a reddish brown or yellow slime that can clog plumbing. These bacteria may cause an odor similar to fuel oil or sewage, or occasionally a “rotten egg” odor. Iron bacteria do not cause health problems, but may make the water less palatable and cause plumbing problems.

**SULFUR BACTERIA** – may be found in conjunction with iron bacteria, and will impart a strong sulfur or “rotten egg” odor to the water.

Each type of bacteria may be tested in the Laboratory at \$23.00 for iron bacteria and \$23.00 for sulfur bacteria. Call the Lab or your local sanitarian’s office for sampling containers.